

W5YI REPORT

Up to the minute news from the worlds of amateur radio, personal computing and emerging electronics. While no guarantee is made, information is from sources we believe to be reliable. May be reproduced providing credit is given to The W5YI Report.

Dits & Bits

Fred Maia, W5YI, Editor, P.O. Box 10101, Dallas, TX 75207

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June 15, 1985

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Vermont Frequency Coordination
More on RF Biological Hazards
Teleconference Radio Network
Amateur Petitions Submitted
Shuttle Audio Retransmissions
Cable Industry Holds Convention
ARRL Proposes Novice Expansion
and much much more!



Ham-in-Space Tentative Operating Schedule

The next ham-in-space flight has been moved up three days from July 15th to July 12th. Astronaut Tony England, W5ORE, is now scheduled to launch at 4:30 p.m. EDT (2030 GMT) aboard the Challenger Shuttle Flight 51F.

Now that the launch date is somewhat firm, Tony has prepared a tentative planned operating schedule. It is, of course, subject to change.

Since W5ORE will be working (on duty) during most of the orbits over the United States, his "voice mode" operating schedule will be somewhat limited.

The on board amateur slow scan TV equipment operates automatically without operator involvement. That mode will be operational even if Tony can't actively participate during the U.S. passes. He will try to get on as much as possible, however. Additional voice operating time will be scheduled by Tony on the orbit preceding when he will operate.

The operating schedule that Tony submitted to the ARRL looks like this. (Keep in mind that this schedule is based on a 4:30 p.m. EDT lift off. If the launch comes earlier or later, then apply the MET, Mission Elapsed Time, to the lift-off time.)

TV & Voice Mode

Orbit	Date	Time - (EDT) Mode:	Location:
47	7/15	2:30-3:00 p.m. E.D.T. E.US, England, Europe MET=2/22:00 - 22.30	
		(MET = Mission Elapsed Time: indicates between 2 days/22 hours and 2 days/22½ hours into the flight.)	
49	7/15	5:50-6:00 p.m. E.D.T. SW& Mid.US & E.Canada MET=3/1:20 - 3/2:00	
79	7/17	3:55-4:25 p.m. E.D.T. Texas, C.US, NE US, England, S. Europe MET=4/23:25 - 4/23:55	
93	7/18	1:30-2:00 p.m. E.D.T. E. Coast US, England, Europe TV & "Possible" Voice mode MET=5/21:00 - 5/21:30	
95	7/18	4:30-4:50 p.m. E.D.T. SW US, C.US, Canada, NE US MET=6/00:00-6/00:20	

In addition, Tony plans to have the slow scan TV gear operational during these passes:

July 15th (All times in E.D.T.)

Orbit/E.D.T. Location:
48 4:00-4:30 p.m. Mid.US, England, Europe
MET=2/23:30 - 3/00:10

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Orbit/E.D.T.

50 7:15-8:15 p.m.

Location:

Hawaii, NW US, Canada,
W&S Africa
MET=3/2:45 - 3:45

51 8:50-9:30 p.m.

Hawaii, NW US, Canada,
New England
MET=3/4:20 - 5:00

52 10:20-11:00 p.m. Guam, NW US, N.C.& E US
MET=3/5:50 - 6:30

53 11:55-12:35 p.m. Guam, NW US, W US, Texas
MET=3/7:25 - 8:05

July 16th

54 1:00-1:30 a.m.

Japan, Aleutians, W.C. US
MET=3/9:00 - 9:30

62 2:00-2:20 p.m.

England, Europe
MET=3/21:30 - 21:50

63 3:25-4:30 p.m.

Gulf Coast, E.US, England,
Europe
MET=3/22:55 - 24:00

64 4:55-5:30 p.m.

SW U.S., Central, NE US
MET=4/00:25 - 1:00

65 6:20-6:50 p.m.

Hawaii, W.US, E.Canada,
NE US
MET=4/1:50 - 2:20

66 7:50-8:20 p.m.

Hawaii, W.US, C.Canada,
E.US
MET=4/3:20 - 3:50

67 9:45-10:05 p.m.

NW US + Canada, C.US,
E.US
MET=4/5:15 - 5:35

68 11:15-11:30 p.m. NW US, C.US, Texas+Gulf
MET=4/6:45 - 7:00

July 17th

69 00:35-1:05 a.m. Japan, Aleutians, W.C. US
MET=4/8:05 - 8:35

78 2:20-2:55 p.m. E.C. US, England, Europe
MET=4/1:50 - 22:35

80 5:30-5:45 p.m. SW US, C.US, NE US
MET=5/1:00 - 1:15

81 6:55-7:25 p.m. Hawaii, NW US, Canada,
NE US
MET=5/2:25 - 2:55

82 8:40-8:55 p.m. NW US, N.Cen. US, NE US
MET=5/4:10 - 4:25

83 9:55-10:05 p.m. CW Contacts with Guam
MET=5/5:25 - 5:35

83 10:15-10:30 p.m. NE US, C.US, SE US
MET=5/5:45 - 6:00

July 18th

84 00:10-00:45 a.m. Japan, Aleutians, W.US,
Texas MET=5/7:40 - 8:15

Orbit/E.D.T.

85 1:10-1:45 a.m.

Location:

Japan, Aleutians, W.C. US
MET=5/8:40 - 9:15

94 2:55-3:25 p.m.

Hawaii, NW US, C.US,
Canada, NE US
MET=5/22:25 - 22:55

96 5:55-6:25 p.m.

Hawaii, NW US, N.Cen.US,
NE US
MET=6/01:25 - 01:55

97 7:30-8:00 p.m.

Hawaii, NW US, N.US +
Canada, NE US
MET=6/03:00 - 03:30

98 9:15-9:30 p.m.

NW US, N.Cen. US, E.US
MET=6/04:45 - 05:00

99 10:35-11:20 p.m.

Guam, Japan, Aleutians,
NW US, Cen. US
MET=6/06:05 - 06:50

July 19th

100 00:10-00:30 a.m. Japan, Aleutians, W.C.
US MET=6/07:40-08:00

UPDATE FROM TONY ENGLAND, W0ORE

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Tony said that the planned "Voice" operating schedules were "ones that I could look at at the beginning of the mission. If it looked like a quiet period and there was a reasonable possibility, we put it down. During the mission there may be others open up... or the ones we put down may not be available."

"Everything is pretty much on schedule. Some of the general integration testing at the Cape (Kennedy) is a couple of days behind but they don't think that this will impact launch date," Tony noted. "There are no major problems."

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"During the solar physics part when we are looking at the sun... this is primarily the last few days when we are doing nothing... I can have the antenna in the window at the time, but I am not available to talk. That is why there are so many TV passes and not so many voice passes. Those last few days I can put the antenna in the my window but I can't go down stairs and talk."

ON SLOW-SCAN AMATEUR TV OPERATION

I asked Tony where the Slow-Scan TV gear was going to be on the spacecraft. "It will be located on the mid-deck. It is 'velcroed' to the side of an airlock. The TV camera itself will probably be on the flight deck. We will be televising scenes from what we are doing on the flight deck or we will take actual TV from the orbitter... what is going on in the payload bay... and pipe it in to the scan converter."

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Asked if anyone else except him would be using the slow-scan gear during the mission, "I hope that several will," he said. "There probably won't be too much third party because it works out that our shift is the only one that passes over the U.S. The other shift passes over China. When they go over our longitudes they are south... near South America."

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Radio communications. While any Technician and higher class amateur can operate 2-meter earth-to-space ham contacts, §Part 97.407 authorizes only Extra-Class amateurs to operate from space. A similar waiver was required for the Owen Garriott (W5LFL) STS-9, November 28, 1983, mission. Even though both Garriott and England are highly trained Ph.Ds, neither has an Extra Class ticket.

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64 4:55-5:30 p.m. SW U.S., Central, NE US MET=4/00:25 - 1:00
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"I am a currently licensed Extra-Class amateur radio operator and wish to be a volunteer examiner. I have never had my station or operator license revoked or suspended. I do not own a significant interest in nor am an employee of any company or entity engaged in making, preparing or distributing amateur radio equipment or license preparation materials. My age is at least 18 years old."

WOULD YOU LIKE TO BECOME A VOLUNTEER EXAMINER? under "The W5YI Report" program? If so, please send a copy of your Extra class license, the signed statement, and a SASE to: W5YI-VEC, PO Box #10101, Dallas, Texas 75207. An FCC certificate (optional) is also available for \$1.00. Details and accreditation materials will be sent to you by return mail.

Soviet reference books say that Russian physicist, A. S. Popov, reported his findings on May 7, 1895 - a full year ahead of when scientist Guglielmo Marconi requested his patent.

The western version is, however, that Marconi sent the first electronic signal - the letter "s" - across the ocean also in 1895 and therefore is the inventor of radio. The controversy continues.

The next ham-in-space could be a YL! New Jersey teacher, Jeannine Duane, WB2MBW is one of the 118 semi-finalists (out of 10,000 teachers) in a competition that involved writing a series of essays, appearing before a panel and submitting a proposed project. Eventual winner will be a crew member aboard an upcoming shuttle space mission. Jeannine proposed amateur radio as her project. She said she would communicate from space with school groups and then deliver the QSL card in person.

The Hughes El Segundo Employee Association Amateur Radio Club (California) earned their field day publicity "bonus points" in an unusual way this year. They arranged for a local cable company to air the STS-9 W5LFL flight film, "Amateur Radio's Newest Frontier" on a local public access cable channel. The material starved cable company aired it 19 times! The Hughes club is now going to prepare their own tape for free public access airing.

A question often heard. When does the FCC change the amateur radio operator tests? Each of the four written examination elements are changed once a year on a staggered basis. The FCC allows a six month period when both the new and old version can be used. It is the VEC that decides which is to be administered during an examination. Below is a list of the various cut-off dates.

Test Element:	License Class:	Revised Date:	Implementation Required:
2	Novice	Aug. 1984	March 1, 1985
3	Tech/General	Nov. 1984	June 1, 1985
4A	Advanced	Mar. 1985	Oct. 1, 1985
4B	Extra Class	Apr. 1985	Nov. 1, 1985

Whenever you buy license preparation material be certain that you use the right version.

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A word to the wise. All publishers have study guides for sale now that have outdated examinations in them! Enough said! Ask the question, "Is this the current material?" Unfortunately many outlets - maybe most - don't know if it is or not!

• An in-depth story about the untimely May 25th death of famed ham DXer Don C. Wallace, W6AM was carried in the May 27th Los Angeles Times along with a photograph. The LA Times also circulated it via their wire service. It was picked up by many newspapers all around the country. Several of you sent me a copy.

• On the home satellite front, SPACE, the Society for Private And Commercial Earth stations has a campaign underway to prevent local communities from banning satellite dishes simply because some people don't like their looks. SPACE said that "the courts have been hesitant to accept 'aesthetics' as justification for zoning restrictions. Aesthetic considerations are almost impossible to define objectively," SPACE said. The FCC has a NPRM out on backyard satellite dishes which suggests that local zoning boards can indeed take aesthetic considerations into account. Comment date on the NPRM closed May 8th.

• Yes, 110 AC volts will kill you! It depends how you get it! The average dry skin body resistance is over 100K ohms. At this resistance, 110 VAC at 100 milliwatts are just above the threshold of sensation. Skin wet from perspiration, abrasions, broken skin or a high pulse rate, however, can lower resistance to just a few hundred ohms. Remember Ohms Law - $I=E/R$. 110 VAC at 100 milliwatts is deadly. Death can occur (particularly if the current path is across your chest) when skin resistance approaches 1K ohms. Some life saving precautions! (1.) Keep one hand in your pocket or behind you when working on electronic gear. (2.) Always turn the power off if possible! (3.) Discharge capacitors that can store charges (4.) Do not work on a damp or wet floor and, preferably, stand on a dry rubber mat. (5.) Keep power cords, etc., in good repair.

• Two new books have just been published by hams. Stuart D. Cowan, W1LX and Bill

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needed for observation during the flight. "We are an astronomy and space plasma physics mission. We will either be using our telescopes on board to study the sun or we are doing these plasma experiments with a small satellite that we deploy and fly around or move it around on the end of an arm."

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image, a low resolution image, a high resolution image and then the identifier. The total cycle is about 2½ minutes."

Actually station ID is not necessary at all. §Part 97.417(a) specifically exempts the amateur identification requirements for stations in space operation. Tony said he "felt very strongly" that he wanted the CW-ID in the SSTV sequence for amateurs and SWLs that want to listen to the passes but do not have slow-scan capability. "We will have a lot more operating time than Owen (W5LFL)... it just won't be voice."

ON TWO-WAY SSTV CAPABILITY

I was told that there indeed was capability for two-way slow-scan TV contacts, "But we don't plan to use it very much because that involves an operator. You have to be there when the image is sent up and then turn the system off so that another image doesn't come and erase it. We haven't publicized it, but we will be trying some of that. It will just be an experiment. I don't know if there will be enough time to operate in that mode."

"We don't know about transmitting a slow-scan logo. That is giving the people who are doing the coding some problems and is still a question. We will be sending flight deck pictures of crew activity. We will be sending payload bay pictures. Our payload bay is filled with telescopes pointing. It will be quite a dramatic view. We will be sending pictures of the earth as we fly over."

ON FUTURE HAM SPACE OPERATIONS....

"One of the things that is important for the amateurs to understand is that there is a lot of pressure to get these small payloads on the missions. We (amateurs) are not the only ones competing for that space. If there is an interest in continuing with these things - demonstrations of that interest are really important."

"If NASA doesn't get the feeling that there is a fairly large public that benefits from doing this, it will be harder to do in the future. We had to work very hard... not just

me... but a lot of people... to get amateur radio on board this time."

"It was a little bit like a 'perils of Pauline' thing... every time you think you have it on and all the things packed down it comes loose some place again. It has been scary at times. If amateurs want it to happen again for somebody else's mission... a good demonstration that this is a good thing to do is important.

(Exclusive interview with Astronaut Tony England, W5ORE, held June 8th.)

F2A EMISSION FOR 10-METER SUBBAND

The FCC issued a Notice of Proposed Rule Making on May 31st proposing to allow F2A (previously this emission designator was F2) in the 29.5 to 29.7 MHz repeater subband. F2A is frequency modulation digital information for aural (by ear) reception.

The NPRM was in response to a petition (RM-4880) filed by the ARRL stating that FM repeater technology can be developed more rapidly by authorizing the additional emission. The FCC said they knew of no valid reason to not approve use of F2A emission adding "We believe that the state of the art has provided the means to amateur operators to engage in this type of emission."

The FCC did ask for comments on the proposal, however, from interested persons about any adverse effects on amateur communications that might occur by allowing this additional emission in the 10-meter repeater subband. Comment period closes August 13, 1985 and reply comments on or before September 16, 1985.

While we are discussing emissions, let us clear up another thing. We received an inquiry as to what was "G3E" emission. G3E is specified in the International Telecommunications Union (ITU) radio regulations for Maritime Mobile. The FCC has also specified G3E whenever F3E (FM telephony) is listed in the rules. Thus it appears that G3E is simply the FM voice mode used at sea. Another new emission designator R3E is the same as the old A3A.

\$1.00 postage

\$1.50 + \$0.50 postage

FCC-Novice Study Guide
FCC-Novice Elem. 2 Test

THE ANSWERS TO ALL FCC TESTS ARE AVAILABLE!
The W5YI Donor's even though a VEC in all regions

VEC

P.O.
Dallas

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REBROADCASTING HAM COMMUNICATIONS

While we don't have the 'paperwork' yet, there was an item on the FCC Commissioner's agenda Friday, June 7th, that dealt with the relationship between amateur radio and the broadcasting of ham radio transmissions.

A Notice of Proposed Rule Making was issued some time ago on this by the FCC's Mass Media Bureau. The NPRM notes that the Communications Act was changed a couple of years ago to make it plain that the privacy protections of §Section 605 (now numbered §705) don't apply to ham radio and therefore shouldn't the FCC revisit the rules as to who can retransmit amateur radio communications.

The Commission said on Friday that they would change this Section so that there is no longer any prohibition on rebroadcasting ham-to-ham communications. The prohibition against news gathering by professional journalists on amateur radio still will remain in effect, however.

There was quite a bit on controversy about this during the Grenada invasion in which amateur radio played a key part. During a Department of Defense imposed blackout, Mark Barattella, KA2ORK, told the world of the October 1983 invasion via amateur radio. There was a question among broadcasters... and in some cases - strong feelings... about what could or could not be done relative to news reporting. Amateur radio was the only link broadcasters had with Grenada.

We will have more to say on this one when we get the press release and the Report & Order from the FCC.

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UPDATE ON HAM FINE NON-PAYMENT

Eugene B. Sykes, W4OO, of West Palm Beach, Florida, was fined \$550 for the 1983 overpower operation in the Novice band. The incident stemmed from a feud that he had with a ham radio operator neighbor who charged Sykes with deliberately interfering with his ham transmissions. The neighbor said Sykes was operating at a frequency which

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June 15, 1985

REBROADCASTING HAM COMMUNICATIONS

While we don't have the 'paperwork' yet, there was an item on the FCC Commissioner's agenda Friday, June 7th, that dealt with the relationship between amateur radio and the broadcasting of ham radio transmissions.

A Notice of Proposed Rule Making was issued some time ago on this by the FCC's Mass Media Bureau. The NPRM notes that the Communications Act was changed a couple of years ago to make it plain that the privacy protections of §Section 605 (now numbered §705) don't apply to ham radio and therefore shouldn't the FCC revisit the rules as to who can retransmit amateur radio communications.

The Commission said on Friday that they would change this Section so that there is no longer any prohibition on rebroadcasting ham-to-ham communications. The prohibition against news gathering by professional journalists on amateur radio still will remain in effect, however.

There was quite a bit on controversy about this during the Grenada invasion in which amateur radio played a key part. During a Department of Defense imposed blackout, Mark Barattella, KA2ORK, told the world of the October 1983 invasion via amateur radio. There was a question among broadcasters... and in some cases - strong feelings... about what could or could not be done relative to news reporting. Amateur radio was the only link broadcasters had with Grenada.

We will have more to say on this one when we get the press release and the Report & Order from the FCC.

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2	229	37	185	337	440	221	562	345	2356	50.6%
3	14	68	88	183	148	197	318	475	1621	64.2%
4	601	704	610	579	1028	827	1215	1271	6835	31.7%
5	26	183	148	219	636	440	742	582	2976	66.9%
6	289	118	386	281	767	361	768	697	3667	35.3%
7	33	128	161	206	608	139	640	600	2515	63.0%
8	320	320	169	221	381	312	477	449	2649	48.9%
9	147	347	337	338	507	311	435	512	2934	30.3%
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Alaska	37	20	44	75	6	53	59	45	339	0.0%
Pacific	0	12	0	15	0	20	60	93	200	72.0%
Caribbean	0	0	21	36	46	34	64	14	215	23.7%
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VERMONT REPEATER OWNERS ORGANIZE

The majority of repeater owners in Vermont have decided to form their own frequency coordination committee. The present coordinator, the New England Spectrum Management Committee (NESMC), has been notified that effective May 31, 1985, all frequency coordination handled in Vermont will be by the Vermont Independent Repeater Coordinating Committee, (VIRCC). The notification came in a letter sent to NESMC and signed by Edward J. Nowak, N1QG, of Williston, Vermont, who heads up the new group.

The change is a unique effort for Vermont to control their own destiny. Nowak said that throughout the years, "Vermont has always been on the tail end of coordination from committees in Montreal (Canada), Albany (New York) and Boston (New England)." Nowak acknowledged that while there had been no interference problems in their state, Vermont repeater owners felt uneasy in that they shared borders with three different coordinating groups... NESMC in New England, the Upper N.Y. Repeater Council in New York and

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The state is very small, long and narrow, with unusual topography. A repeater is either on a mountain or in a valley with very wide or extremely limited range. Nowak said that outside coordinators could not predict the propagation as well as those who experience it on a daily basis.

By organizing their own state frequency coordination committee, neighboring coordination groups will have to deal with them - or they legally have the right to make a frequency coordination decision deemed best by the 18 repeater owners in Vermont regardless of other coordination efforts. Nowak had signatures representing 12 of the 18 repeaters presently located in Vermont.

While Vermont has announced that it will conform to the established 15 KHz 2-meter repeater spacing above 146 MHz, they are proposing to deviate from the 20 KHz spacing below 146 MHz and go with additional 15 KHz spacing. They oppose the 20 KHz subband (144.5-145.5 MHz) NESMC proposal.

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W5YI REPORT.....

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applicants and VEs. All manuals contain all questions, answers and discussion why answer is right!

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FCC-Tech/Gen. Study Guide
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The W5YI Report, even though a VEC in all regions has been given permission by the FCC to distribute license preparation materials as a convenience to applicants and VEs. All manuals contain all questions and discussion why answer is right!

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W5YI REPORT.....

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June 15, 1985

AMSAT officials will be on hand to cover all facets of the Radio Amateur Satellite Program from how do you get started with amateur satellite communications to what the future holds.

There will probably be updated information on the upcoming ham-in-space flight since it is AMSAT that is coordinating the frequencies and technical parameters with Astronaut Tony England, W0ORE, and the League.

The Teleconference Radio Network is a service of the Midway Amateur Radio Club and links hundreds of repeaters throughout the North American continent with a sophisticated repeater to telephone bridge lashup.

RECENT AMATEUR PETITIONS SUBMITTED

William R. Gardner, W8WG, of Athens, Ohio, has resubmitted his petition proposing that the FCC increase the 10-Meter phone band down to 29.0 MHz. He maintains that "Since this band has only four repeater frequencies, this plan will add four more and protect established satellite operation located between 29.3 and 29.5 MHz."

His new 29.0 to 29.3 MHz segment band plan calls for four 10-meter Input (receive) repeater frequencies at 29.02, .04, .06 & .08 MHz and four Output (transmit) frequencies at 29.12, .14, .16 & .18 MHz. Nine FM simplex channels would be located at 29.21, .22, .23, .24, .25, .26, .27, .28 and .29 MHz. (Might be a good idea with the possible upcoming expansion of the band to Novice operators.)

The FCC has accepted the petition of Robert A. Scupp, WB5YYX, of Albuquerque, NM, requesting that §Part 97.25(b) & 97.28(e) of the Amateur Rules, be amended to allow the Certificate of Successful Completion to be used by the new Volunteer Examining Program for written examination credit as well as for code credit. The FCC has assigned the petition, file No. RM-4991, and issued a Public Notice on May 28th asking for public comment. Comments close on June 28th.

Perennial petition filer, Herb Schoenbohm, KV4FZ, of St. Croix in the U.S. Virgin

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AMSAT officials will be on hand to cover all facets of the Radio Amateur Satellite Program from how do you get started with amateur satellite communications to what the future holds.

There will probably be updated information on the upcoming ham-in-space flight since it is AMSAT that is coordinating the frequencies and technical parameters with Astronaut Tony England, W0ORE, and the League.

The Teleconference Radio Network is a service of the Midway Amateur Radio Club and links hundreds of repeaters throughout the North American continent with a sophisticated repeater to telephone bridge lashup.

RECENT AMATEUR PETITIONS SUBMITTED

William R. Gardner, W8WG, of Athens, Ohio, has resubmitted his petition proposing that the FCC increase the 10-Meter phone band down to 29.0 MHz. He maintains that "Since this band has only four repeater frequencies, this plan will add four more, and protect established satellite operation located between 29.3 and 29.5 MHz."

His new 29.0 to 29.3 MHz segment band plan calls for four 10-meter Input (receive) repeater frequencies at 29.02, .04, .06 & .08 MHz and four Output (transmit) frequencies at 29.12, .14, .16 & .18 MHz. Nine FM simplex channels would be located at 29.21, .22, .23, .24, .25, .26, .27, .28 and .29 MHz. (Might be a good idea with the possible upcoming expansion of the band to Novice operators.)

The FCC has accepted the petition of Robert A. Scupp, WB5YYX, of Albuquerque, NM, requesting that §Part 97.25(b) & 97.28(e) of the Amateur Rules, be amended to allow the Certificate of Successful Completion to be used by the new Volunteer Examining Program for written examination credit as well as for code credit. The FCC has assigned the petition, file No. RM-4991, and issued a Public Notice on May 28th asking for public comment. Comments close on June 28th.

Perennial petition filer, Herb Schoenbohm, KV4FZ, of St. Croix in the U.S. Virgin

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June 15, 1985

Orbit/E.D.T.
50 7:15-8:15 p.m.

Location:
Hawaii, NW US, Canada,
W&S Africa
MET=3/2:45 - 3:45

51 8:50-9:30 p.m.

Hawaii, NW US, Canada,
New England
MET=3/4:20 - 5:00

52 10:20-11:00 p.m. Guam, NW US, N.C.& E US
MET=3/5:50 - 6:30

53 11:55-12:35 p.m. Guam, NW US, W US, Texas
MET=3/7:25 - 8:05

July 16th
54 1:00-1:30 a.m.

Japan, Aleutians, W.C. US
MET=3/9:00 - 9:30

62 2:00-2:20 p.m.

England, Europe
MET=3/21:30 - 21:50

63 3:25-4:30 p.m.

Gulf Coast, E.US, England,
Europe
MET=3/22:55 - 24:00

64 4:55-5:30 p.m.

SW US., Central, NE US
MET=4/00:25 - 1:00

65 6:20-6:50 p.m.

Hawaii, W.US, E.Canada,
NE US
MET=4/1:50 - 2:20

66 7:50-8:20 p.m.

Hawaii, W.US, C.Canada,
E.US
MET=4/3:20 - 3:50

67 9:45-10:05 p.m.

NW US + Canada, C.US,
E.US
MET=4/5:15 - 5:35

68 11:15-11:30 p.m.

NW US, C.US, Texas+Gulf
MET=4/6:45 - 7:00

July 17th
69 00:35-1:05 a.m.

Japan, Aleutians, W.C. US
MET=4/8:05 - 8:35

78 2:20-2:55 p.m.

E.C. US, England, Europe
MET=4/1:50 - 22:35

80 5:30-5:45 p.m.

SW US, C.US, NE US
MET=5/1:00 - 1:15

81 6:55-7:25 p.m.

Hawaii, NW US, Canada,
NE US
MET=5/2:25 - 2:55

82 8:40-8:55 p.m.

NW US, N.Cen. US, NE US
MET=5/4:10 - 4:25

83 9:55-10:05 p.m.

CW Contacts with Guam
MET=5/5:25 - 5:35

83 10:15-10:30 p.m.

NE US, C.US, SE US
MET=5/5:45 - 6:00

July 18th
84 00:10-00:45 a.m.

Japan, Aleutians, W.US,
Texas MET=5/7:40 - 8:15

Location:
Orbit/E.D.T.
85 1:10-1:45 a.m.

94 2:55-3:25 p.m.

96 5:55-6:25 p.m.

97 7:30-8:00 p.m.

98 9:15-9:30 p.m.

99 10:35-11:20 p.m.

100 00:10-00:30 a.m.

Location:
Japan, Aleutians, W.C. US
MET=5/8:40 - 9:15

Hawaii, NW US, C.US,
Canada, NE US
MET=5/22:25 - 22:55

Hawaii, NW US, N.Cen.US,
NE US
MET=6/01:25 - 01:55

Hawaii, NW US, N.US +
Canada, NE US
MET=6/03:00 - 03:30

NW US, N.Cen. US, E.US
MET=6/04:45 - 05:00

Guam, Japan, Aleutians,
NW US, Cen. US
MET=6/06:05 - 06:50

Japan, Aleutians, W.C. US
MET=6/07:40-08:00

UPDATE FROM TONY ENGLAND, W1ORE

I spoke to Astronaut Tony England (W1ORE) this past weekend. He said that "this schedule is just a 'brief look' at our flight plan. We have INCO (Instrumentations Communications Officer for the mission) Bob Castle working out the exact operating plan. The preliminary plan that you have is based not only on the 'ground track' (where the spacecraft will be in relation to the earth) but also on what we are doing on board that will allow us - or not allow us to operate."

Tony said that the planned "Voice" operating schedules were "ones that I could look at at the beginning of the mission. If it looked like a quiet period and there was a reasonable possibility, we put it down. During the mission there may be others open up... or the ones we put down may not be available."

"Everything is pretty much on schedule. Some of the general integration testing at the Cape (Kennedy) is a couple of days behind but they don't think that this will impact launch date," Tony noted. "There are no major problems."

England said that he would not be able to have the amateur antenna installed in his window much of the time since the window is

"I am a currently licensed Extra-Class amateur radio operator and wish to be a volunteer examiner. I have never had my station or operator license revoked or suspended. I do not own a significant interest in nor am an employee of any company or entity engaged in making, preparing or distributing amateur radio equipment or license preparation materials. My age is at least 18 years old."

WOULD YOU LIKE TO BECOME A VOLUNTEER EXAMINER?
under "The W5YI Report" program? If so, please send a copy of your Extra class license, the signed statement, and a SASE to: W5YI-VEC, PO Box #10101, Dallas, Texas 75207. An FCC certificate (optional) is also available for \$1.00. Details and accreditation materials will be sent to you by return mail.

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Orr, W6SAI, have teamed up to produce the 272-page (First Edition/First Printing) "1985 Beam Antenna Handbook"... telling you everything you ever wanted to know about amateur beam antennas and transmission lines. (\$9.95 from Radio Publications, Inc; Box #149; Wilton, CT 06897)

Stuart Crump, Jr., N4EGX, Publisher and Editor of "Personal Communications Magazine" recently authored "You Can Afford a Car Telephone" - a complete and excellent 139-page guide to the cellular telephone. (\$6.95 from Futurecomm Publications, Inc.; 1005 Williamsburg Ct., Fairfax, VA 22032)

CABLE INDUSTRY HOLDS 1985 CONVENTION

The cable TV industry held their 34th annual 1985 NCTA Convention last week on a very upbeat note! The Cable Communications Policy Act of 1984 has unburdened cable operators from many local municipal regulations including pricing of their service. Operators are free to raise their rates by 5% a year now.

The hottest topic was scrambling of satellite feeds and the coming boom ("explosion", one industry spokesman called it) in "pay-per-view TV" to addressable cable converters. "Marketing C-band direct" (charging an estimated one million backyard dish owners for satellite programming) also was a hot subject.

Rumor has it that the cable industry is thinking about banding together to offer their own C-band service... sort of a national over-the-air cable backyard dish service.

Cable operators are very concerned about signal piracy... hooking up to the terminal block in the alley without paying for it. It costs the cable industry some \$500 million a year! A Coalition to Oppose Signal Theft (COST) has been formed to coordinate an industry wide crackdown on cable pirates.

All in all, however, the cable industry is alive and healthy! There are now some 35 million cable subscribers in more than half the homes in the U.S. Penetration is expected to reach 85% by the end of the decade.

NOVICE EXPANSION PROPOSED BY ARRL

It looks like the ARRL is jumping on the Novice Expansion band wagon! The ARRL's Executive Committee approved a plan developed by the League Staff which includes Novice 10-meter HF voice privileges, access to the 220-MHz amateur band and use of a segment of the 1240-MHz band. Specifically, the Executive Committee will propose to the ARRL directors that they support...

(1.) Novice level Ten Meter Voice (SSB) privileges between 28.3 and 28.5 MHz with CW & Digital (A1A, J2A, F1B and J2B - 1200 baud maximum) privileges between 28.1 and 28.3 MHz. Use of double sideband (AM) would be prohibited to preclude CB gear from being recrystallized for CB use on the ham band. A band plan will be developed separating Novice CW and digital operations... still another will replace the present world-wide 28 MHz beacon network.

Technician Class amateurs would, of course, automatically obtain the Novice privileges. The Executive Committee has also recommended that the reduced power levels accorded Novices be eliminated so that licensees of other amateur classes do not end up with less privileges than they previously had.

Additional FCC questions should be added to the Novice examination to cover material on the new Novice privileges. Element 2 would be increased to 30 (instead of 20) questions... the question pool to 300 questions. Thus a Novice license would be slightly more difficult to obtain than is presently the case. The 5-wpm Morse code will still be required, of course.

(2.) Proposed also for Novices were all voice, CW and data privileges in the amateur 220-225 MHz band with a 25 watt output limitation. (This action could help save the amateur band from being reallocated to land mobile interests.) Novices would not be authorized to install repeater stations.

(3.) All voice, CW and data privileges between 1246 and 1260 MHz. Power limit: 5 watts. The ARRL Executive Committee meeting took place on May 18th in Rochester, NY.